

## CLAIMS

1. An implant for use inside a human body, comprising a biocompatible self-supporting base material (12,32,34,44,50,52,60) having surfaces exposed to aggressive body cells, when the implant is implanted in the human body, characterized by a cell barrier coating (14,40,54) coated on the surfaces to prevent body cells from breaking down the base material.

10

2. An implant according to claim 1, further comprising a property improving means for improving at least one physical property of the implant other than self-supporting and cell barrier properties.

15

3. An implant according to claim 2, wherein the property improving means comprises a core of a viscoelastic material covered with the self-supporting base material.

20

4. An implant according to claim 2, wherein the base material forms an inflatable tubing.

5. An implant according to claim 4, wherein the tubing has an inner surface defining the interior of the tubing, and the coating covers the inner surface.

25

6. An implant according to claim 4, wherein the base material forms two coaxial tubular layers and the property improving means comprises a tubular intermediate layer of a viscoelastic material located between the coaxial tubular layers.

30

7. An implant according to claim 4, wherein the base material forms an outer tubular layer, an inner arcuate layer

attached to the outer tubular layer, the outer and inner layers defining a curved space extending longitudinally along the tubing, and the property improving means comprises viscoelastic material filling the space.

5

8. An implant according to any one of claims 3, 6 and 7, wherein the viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

10

9. An implant according to claim 2, wherein the base material forms a first layer and the property improving means comprises a second layer applied on the first layer, the second layer being more fatigue resistant than the first layer.

15

10. An implant according to claim 9, wherein the second layer comprises a polyurethane layer.

20

11. An implant according to claim 9 or 10, wherein the first layer of the base material forms an inflatable tubing, and the second layer covers the base material within the tubing.

25

12. An implant according to claim 2, wherein the property improving means comprises gas contained in a multiplicity of cavities formed in the base material to improve the flexibility of the base material.

30

13. An implant according to claim 12, wherein the cavities are defined by net structures of the base material.

14. An implant according to claim 12 or 13, wherein the base material comprises Teflon™.

15. An implant according to any one of claims 12-14,

wherein the base material forms an inflatable tubing.

16. An implant according to any one of the preceding claims, wherein the base material comprises hard silicone.

5

17. An implant according to any one of the preceding claims, wherein the coating comprises a Parylene™ or a biocompatible metal coating.

10

18. An implantable constriction device according to claim 17, wherein the biocompatible metal coating is selected from the group consisting of gold, silver and titanium.

15